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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHEN, CHONGSHAN

ART UNIT PAPER NUMBER

2172

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/900,733	Applicant(s) MENIN ET AL.	
	Examiner Chongshan Chen	Art Unit 2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/6/04 & 5/10/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-39 are pending in this Office Action.

Specification

2. The disclosure is objected to because of the following informalities:

The specification does not define the term “predetermined weighting factor”.

Appropriate correction is required.

Response to Arguments

3. Applicant's arguments filed on 26 April 2004 have been fully considered but they are not persuasive.

4. As per applicant's arguments regarding independent claims 1 and 24 that are directed to a method for classifying an item, the item being a product and not being a document, the item having a plurality of attributes, wherein an attribute is not a word within a document, each attribute being a descriptor of a product. Zhilyaev reference contains no teaching or suggestion of an item being a product and not being a document have been considered but are not persuasive.

First, the recitation “the item being a product and not being a document, the item having a plurality of attributes, wherein an attribute is not a word within a document, each attribute being a descriptor of a product” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the

claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Furthermore, the arguments contradict with the specification. The applicants' specification discloses that the source content is typically an electronic catalog in some form, typically having a list of items each associated with some descriptive terms. As discussed above, the items can be tangible or intangible, documents, services, software or any other type of items capable of being described (specification page 8, [0020]) ... the method and apparatus described herein are equally applicable to categorizing any other types of an electronic catalog and other types of items including documents, and data files (specification page 40, [0099]). Clearly, the applicant claimed invention classifies a document. Since the claimed document classification system could also be used to classify a product, the document classification system of Zhilyaev could be used to classify a product as well. When using the document classification system of Zhilyaev to classify a product, one of ordinary skill in the art would treat the product as the whole document, and treat the descriptor of the product, which is text, as the word within the document. Therefore, the document classification system of Zhilyaev could be used to classify a product as well.

5. As per applicant's arguments regarding the reference does not teach or suggest selecting an attribute of an item, comparing the value of the attribute of the item to a set of possible attribute values, the possible attribute values being associated respectively, with item classifications; and selecting at least one item classification for the item based on the comparison have been considered but are not persuasive. Zhilyaev teaches selecting words from a document

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and classify the document into a cluster by determining the similarities between the selected words and the significant words of the classification (Zhilyaev, col. 3, line 1 – col. 4, line 58).

The step of determining the similarities obviously includes the step of comparing the value of the attribute. Therefore, Zhilyaev teaches claimed limitation.

6. As per applicant's arguments regarding the reference contains no teaching or suggest of selecting an attribute of an item, the item having a plurality of attributes have been considered but are not persuasive. The examiner interprets the item being a document, and a plurality of attributes being the significant words within the document. Zhilyaev teaches selecting words or phrases from a document for use in classifying the document, and the significant words have weight associated with them (Zhilyaev, col. 3, line 23 – col. 4, line 59). Therefore, the argument is not persuasive.

7. As per applicant's arguments regarding the reference does not teach or suggest determining a confidence score for each selected item classification for the item have been considered but are not persuasive. Zhilyaev teaches determining a confidence score for each selected item classification for the item (Zhilyaev, col. 4, lines 1-19).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhilyaev (6,137,911).

As per claim 1, Zhilyaev teaches a method for classifying an item, the item having a plurality of attributes, each attribute having a value, the method comprising:

selecting an attribute of the item (Zhilyaev, col. 4, lines 2-4, "For a selected term in the text entity ...");

comparing the value of the attribute of the item to a set of possible attribute values, the possible attribute values being associated respectively, with item classifications (Zhilyaev, col. 3, line 1 – col. 4, line 59, col. 11, lines 41-45);

selecting at least one item classification for the item based on the comparison (Zhilyaev, col. 3, line 1 – col. 4, "the text entity is classified into those clusters in which the entity has a number of significant terms greater than a predetermined threshold number"); and

determining a confidence score for each selected item classification for the item (Zhilyaev, col. 3, line 1 – col. 4).

Zhilyaev does not explicitly disclose the item being a product, wherein each attribute being a descriptor of a product. However, the applicants' specification discloses that the source content is typically an electronic catalog in some form, typically having a list of items each associated with some descriptive terms. As discussed above, the items can be tangible or intangible, documents, services, software or any other type of items capable of being described (specification page 8, [0020]) ... the method and apparatus described herein are equally applicable to categorizing any other types of an electronic catalog and other types of items including documents, and data files (specification page 40, [0099]). Clearly, the applicant claimed invention classifies a document. Since the claimed document classification system could also be used to classify a product, the document classification system of Zhilyaev could be used to classify a product as well. When using the document classification system of Zhilyaev to classify a product, one of ordinary skill in the art would treat the product as the whole document, and treat the descriptor of the product, which is text, as the word within the document. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the document classification system of Zhilyaev to classify a product.

As per claim 2, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches an engineered knowledge base of classifications, each classification associated with at least one attribute and each attribute associated with at least one attribute value (Zhilyaev, col. 3, line 1 – col. 4, line 59).

As per claim 3, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches

selecting a second attribute of the item if one selected item classification does not have a sufficiently high confidence score (Zhilyaev, col. 4, lines 1-19);

comparing the value of the second attribute of the item to a set of possible second attribute values, the possible second attribute values being associated, respectively, with item classifications (Zhilyaev, col. 3, line 1 – col. 4, line 59, col. 11, lines 41-45);

selecting at least one item classification for the item based on the second comparison (Zhilyaev, col. 3, line 1 – col. 4, line 59); and

determining a confidence score for each selected item classification of the second comparison (Zhilyaev, col. 3, line 1 – col. 4, line 59).

As per claim 4, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches

comparing the value of the attribute of the item to a second set of possible attribute values, the possible attribute values being associated respectively, with the item classifications (Zhilyaev, col. 3, line 1 – col. 4, line 59, col. 11, lines 41-45);

selecting at least one item classification for the item based on the second comparison (Zhilyaev, col. 4, lines 17-19); and

determining a confidence score for each selected item classification for the item (Zhilyaev, col. 4, lines 5-19).

As per claim 5, Zhilyaev teaches all the claimed subject matters as discussed in claim 3, and further teaches each set of possible values comprises an engineered knowledge base, the engineered knowledge bases comprising at least one of a primary engineered knowledge base of key item attribute values, an engineered knowledge base of a classification schema, and an

engineered knowledge base of an alternated classification system (Zhilyaev, col. 3, line 1 – col. 4, line 59).

As per claim 6, Zhilyaev teaches all the claimed subject matters as discussed in claim 5, and further teaches the engineered knowledge base of a classification schema contains a plurality of item classifications mapped to a second classification schema (Zhilyaev, col. 3, line 1 – col. 4, line 59).

As per claim 7, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches comparing the value of the attribute and selecting at least one item classification are performed independent of a subject matter of the item classifications, the subject matters including one or more of electronic, office products, and medical supplies (Zhilyaev, col. 3, lines 23-28).

As per claim 8, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches comparing the value of the attribute and selecting at least one item classification are performed independent of a language of the item and independent of a language of the set of possible attribute values (Zhilyaev, col. 4, lines 17-19).

As per claim 9, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches the attribute is a part number of the item (Zhilyaev, col. 11, lines 41-45).

As per claim 10, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches the attribute is a description of the item (Zhilyaev, col. 11, lines 41-45).

As per claim 11, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches comparing the value of the attribute comprises performing a search for a matching value among the set of possible attribute values (Zhilyaev, col. 12, lines 28-67).

As per claim 12, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches comparing the value of the attribute comprises performing a search for a value among the set of possible attribute values that is within a range (Zhilyaev, col. 12, lines 28-67).

As per claim 13, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches determining a confidence score comprises determining a percentage of items in an item classification that contain an attribute value found in the respective comparison and assigning a higher confidence score for attribute values contained in a higher percentage of items in the respective item classification (Zhilyaev, col. 11, line 64 - col. 12, line 67).

As per claim 14, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches determining a confidence score comprises determining a degree of similarity between the value of the attribute and the corresponding attribute value of the selected item classification (Zhilyaev, col. 11, lines 41-45).

As per claim 15, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches presenting the item and the selected item classifications from the comparison to a user (Zhilyaev, col. 5, lines 23-67).

As per claim 16, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches the confidence scores are presented to the user in association with the corresponding item classifications (Zhilyaev, col. 5, lines 23-67).

As per claim 17, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches analyzing the attribute value of the item against a stop list and excluding any stop list words from the comparison (Zhilyaev, col. 7, lines 38-67).

As per claim 18, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches presenting the selected item classifications to a user; receiving a designation from the user of at least one selected item classification; and classifying the item in the designated item classifications (Zhilyaev, col. 5, lines 23-67).

As per claim 19, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches comparing confidence scores for all selected item classifications and classifying the item in at least one of the selected item classifications based on the confidence score comparison (Zhilyaev, col. 11, lines 41-45).

As per claim 20, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches automatically classifying an item if the confidence score is above a threshold and presenting the selected item classifications to a user if the confidence score is below the threshold (Zhilyaev, col. 3, lines 23-67).

As per claim 21, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches comparing the value of the first attribute comprises successively executing a plurality of searches, each successive search having more general criteria and wherein determining a confidence score comprises assigning a lower confidence score to the results of each successive search (Zhilyaev, col. 10, lines 30-67).

As per claim 22, Zhilyaev teaches all the claimed subject matters as discussed in claim 1, and further teaches

selecting a classification for the item (Zhilyaev, col. 4, lines 17-19);

supplementing the set of possible attribute values with attribute values of the item (Zhilyaev, col. 10, lines 30-67).

As per claim 23, Zhilyaev teaches all the claimed subject matters as discussed in claim 22, and further teaches set of possible attribute values initially contains no attribute values, the method further comprising repeating selecting an attribute, comparing the value of the attribute, selecting at least one item classification, selecting a classification, and supplementing the set of possible attribute values for a plurality of items so that as each item is classified, the set of possible attribute values is increased (Zhilyaev, col. 10, lines 30-67).

As per claim 24, Zhilyaev teaches a method for classifying an item, the item being associated with a plurality of descriptive terms, the method comprising:

searching a reference list of descriptive terms to find descriptive terms corresponding to the descriptive terms associated with the item, the reference list of descriptive terms including at least one item classification for each descriptive term and a confidence score for each item classification of each descriptive term (Zhilyaev, col. 3, line 1 – col. 4, line 59, col. 8, line 51 - col. 10, line 67);

compiling the item classifications and associated confidence scores for each found corresponding descriptive term in the reference list to determine a confidence score for each item classification (Zhilyaev, col. 3, line 1 – col. 4, line 59, col. 11, lines 21 - col. 12, lines 67);

ranking the item classifications for each found descriptive term using the compiled confidence scores (Zhilyaev, col. 4, lines 43-58).

Zhilyaev does not explicitly disclose the item being a product, wherein each attribute being a descriptor of a product. However, the applicants' specification discloses that the source content is typically an electronic catalog in some form, typically having a list of items each associated with some descriptive terms. As discussed above, the items can be tangible or

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intangible, **documents**, services, software or any other type of items capable of being described (specification page 8, [0020]) ... the method and apparatus described herein are equally applicable to categorizing any other types of an electronic catalog and other types of items including **documents**, and data files (specification page 40, [0099]). Clearly, the applicant claimed invention classifies a document. Since the claimed document classification system could also be used to classify a product, the document classification system of Zhilyaev could be used to classify a product as well. When using the document classification system of Zhilyaev to classify a product, one of ordinary skill in the art would treat the product as the whole document, and treat the descriptor of the product, which is text, as the word within the document. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the document classification system of Zhilyaev to classify a product.

As per claim 25, Zhilyaev teaches all the claimed subject matters as discussed in claim 24, and further teaches successively executing a plurality of searches, each successive search having more general criteria and wherein compiling the confidence scores comprises adjusting the confidence scores so that a score is lowered for each successive search in which the corresponding descriptive term is first found (Zhilyaev, col. 8, line 51 - col. 10, line 67).

As per claim 26, Zhilyaev teaches all the claimed subject matters as discussed in claim 24, and further teaches presenting the item classifications and rankings to a user (Zhilyaev, col. 4, lines 43-58).

As per claim 27, Zhilyaev teaches all the claimed subject matters as discussed in claim 24, and further teaches receiving a designation of at least one item classification from the user;

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and classifying the item in the designated classifications (Zhilyaev, col. 3, line 23 - col. 4, line 59).

As per claim 28, Zhilyaev teaches all the claimed subject matters as discussed in claim 24, and further teaches automatically classifying an item if the confidence score is above a threshold and presenting the selected item classifications to the user if the confidence score is below the threshold (Zhilyaev, col. 3, line 23 - col. 4, line 59).

As per claim 29, Zhilyaev teaches all the claimed subject matters as discussed in claim 24, and further teaches the descriptive terms in the reference list are associated with possible attributes of the item and wherein the confidence score depends upon the attribute with which the descriptive term is associated (Zhilyaev, col. 8, line 51 - col. 10, line 67).

As per claim 30, Zhilyaev teaches all the claimed subject matters as discussed in claim 24, and further teaches searching for descriptive terms associated with the same attribute as the attribute of the item associated with the searched descriptive term (Zhilyaev, col. 8, line 51 - col. 10, line 67).

As per claim 31, Zhilyaev teaches all the claimed subject matters as discussed in claim 24, and further teaches classifying the item in at least one of the item classifications for a found descriptive term; and supplementing the reference list with descriptive terms associated with the item (Zhilyaev, col. 10, lines 30-67).

As per claim 32, Zhilyaev teaches all the claimed subject matters as discussed in claim 24, and further teaches the reference list comprises an engineered knowledge base, the engineered knowledge base comprising at least one of a primary engineered knowledge base of

key item attribute values, an engineered knowledge base of a classification schema, and an engineered knowledge base of an alternated classification system (Zhilyaev, col. 3, lines 23-36).

As per claim 33, Zhilyaev teaches all the claimed subject matters as discussed in claim 32, and further teaches the engineered knowledge base of a classification schema contains a plurality of item classifications mapped to a second classification schema (Zhilyaev, col. 3, lines 23-36).

11. Claims 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhilyaev (6,137,911) in view of Pant et al. ("Pant", 6,012,053).

As per claim 34, Zhilyaev teaches a machine-readable medium having stored thereon data representing sequences of instructions which, when executed by a machine, cause the machine to perform operations comprising:

selecting an attribute of an item, the item having a plurality of attributes, each attribute having a value (Zhilyaev, col. 4, lines 1-19);

comparing the value of the selected attribute of the item to a set of possible attribute value, the possible attribute values being associated respectively, with item classifications (Zhilyaev, col. 3, line 1 – col. 4, line 19);

selecting at least one item classification for the item based on the comparison (Zhilyaev, col. 3, line 1 – col. 4, line 19); and

determining a confidence score for each selected item classification for the item (Zhilyaev, col. 3, line 1 – col. 4, line 19).

Zhilyaev does not explicitly disclose a predetermined weighting factor. Pant discloses a predetermined weighting factor (Pant, col. 8, lines 59-61). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to include a predetermined weighting factor in the system of Zhilyaev in order to better assist the classification system to classify the item into correct category. Because the predetermined weighting factor defines how important is match every word, frequency of words, appears in title, ... etc., these factors help the system to classify the item into a more accurate category.

Claims 35-36 are rejected on grounds corresponding to the reasons given above for claims 3-4.

As per claim 37, Zhilyaev teaches an apparatus for classifying an item, the item having a plurality of attributes, each attribute having a value, the apparatus comprising:

a classification knowledge database containing a plurality of values, each associated with at least one category (Zhilyaev, col. 3, lines 23-28);

a search engine to select an attribute of the item, to compare the value of the attribute of the item to a set of possible attribute values of the classification knowledge database, to select at least one item classification for the item based on the comparison, and to determine a confidence score for each selected item classification for the item (Zhilyaev, col. 4, lines 1-19).

Zhilyaev does not explicitly disclose a predetermined weighting factor. Pant discloses a predetermined weighting factor (Pant, col. 8, lines 59-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a predetermined weighting factor in the system of Zhilyaev in order to better assist the classification system to classify the item into correct category. Because the predetermined weighting factor defines how important is match every word, frequency of words, appears in title, ... etc., these factors help the system to classify the item into a more accurate category.

As per claim 38, Zhilyaev and Pant teach all the claimed subject matters as discussed in claim 37, and further teach selecting a second attribute of the item if one selected item classification does not have a sufficiently high confidence score, to compare the value of the second attribute of the item to a set of possible second attribute values, of the classification knowledge database, to select at least one item classification for the item based on the second comparison, and to determine a confidence score for each selected item classification of the second comparison (Zhilyaev, col. 10, line 30 - col. 11, line 67).

As per claim 39, Zhilyaev and Pant teach all the claimed subject matters as discussed in claim 37, and further teach comparing the value of the attribute of the item to a second set of possible attribute values, the possible attribute values being associated, respectively, with the item classifications, to select at least one item classification for the item based on the second comparison, and to determine a confidence score for each selected item classification for the item (Zhilyaev, col. 10, line 30 - col. 11, line 67).

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chongshan Chen whose telephone number is 703-305-8319. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703)305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 6, 2004


SHAHID ALAM
PRIMARY EXAMINER